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THE PRESERVATION PLANNING PROJECT AT NAL

by Leslie A. Kulp
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The preservation planning project involves a consultant-assisted, self-study of the current preservation status of the Library and the development of plans for implementing preservation activities at NAL. The project report will describe what needs to be done, in order of priority, and recommend the administrative structure needed to execute preservation activities most effectively.

The Association of Research Libraries (ARL), which has for some time been involved in the development of procedures for the conduct of library preservation studies, provides the consulting assistance. It also assists NAL by eliminating the need for extensive effort in gathering information on what has already been done and ascertaining the current state of the art by providing the bibliographic sources of this information. ARL assists in the preliminary and developmental project design and helps to keep the project on track, which is important since many participants in the study are heavily engaged in other assignments. It strengthens the commitment to accomplishing this task with minimal delay. The ARL consultant is Jutta Reed-Scott, who is well known nationally for her knowledge of collection development as well as preservation activities. She will provide on-site visits as needed plus advice by phone or written communication. Summarily, ARL's role is to assist the Library in performing a well organized and complete study with a minimum investment of time and effort.

Two very useful items provided by ARL are the *Preservation Planning Manual*¹ and the *Resource Notebook*.² The *Manual* is a carefully thought-out guide that provides a great deal of organizational and procedural information for the study. The *Notebook* is a cumulation of carefully selected documents most pertinent to the concerns of this study, some of which would be very difficult to acquire otherwise. The *Manual* and *Notebook* provide a very efficient approach to collecting information on the nature of preservation problems and the state of the art.



Although NAL microfilmed many brittle or deteriorating books in the 1960's and 1970's and wrapped the original volumes hoping to arrest or decelerate environmental and usage damage, one can see from the condition of these disintegrating wrappings that additional and more professional preservation action is needed to save these volumes.



photo: D. Starr

This current photo shows a number of problems, including paper becoming brittle and beginning to flake, improper support with consequent warping, various usage of string, rubber bands, post and clamp binders, Princeton files, and paper wrappings within several related series of publications. These series are not bound because of missing issues, multiple revisions of some numbers, and bad paper.

NAL provides the personnel to collect and analyze library specific data and to plan what courses of action should be taken within its own guidelines.

The reason for the Library's concern for preservation is the recognized value of the NAL collection, which is a national resource for agricultural information. The material in the NAL collection is especially valuable because it is readily available to anyone who needs it. A significant portion of the collection is held uniquely in this country by NAL, and many other holdings are difficult to locate elsewhere. Therefore, it is incumbent upon NAL to develop effective means to ensure that the collection will be available in the future so that the national research effort can avoid the expensive wastes associated with repetitive investigations or reinventing the wheel. Preserving this information is essential to maximize the efficiency of scientific progress in agriculture. It is important to remember that the advance of science raises our standard of living and generally benefits the world.

It is well known that the advances of

scientific discovery are built upon the accomplishments of the past. That is the reason why the records of the past are so important. This readily becomes evident by reading the introductory section of articles published in creditable scientific journals. One of the first things that any scientist or group of scientists will do when a research program is initiated is conduct an extensive review of the literature. Generally, scientists are very insistent that the review be as comprehensive as possible. This is of great importance in order to determine what has been done by other scientists and to review what has not been done, especially since current knowledge directs attention to areas that have escaped consideration by previous researchers. Emphasis on comprehensiveness is to make the planning of future investigations as complete and effective as possible. A researcher has few experiences as frustrating and embarrassing, especially among peers, as that of finding that one's research and discoveries have already been accomplished by someone else. While this scientific need represents one rationale for preserving information for future use, there are other reasons for supporting preservation efforts such as those relating to the historical importance of information and the saving of artifacts for present and future generations.

Unfortunately, the NAL collection is deteriorating. Some of its holdings are too brittle to be used by anyone and will crumble to dust and flakes if handled just once. Other materials are rapidly approaching this state.

While the state of the collection at this moment has not been measured precisely, those who have worked in preservation activities and know generally the condition of the collection (Alan Fusonie, Head, Special Collections and Joseph Swab, former Head, Collections Maintenance) state that it is in a very serious condition.

In large research libraries, it has been found to be typical that 25% of the collection has become brittle.³ Anyone familiar with agricultural publications could suppose that the situation here is likely to be more serious because of the



Bad shelving practices seen in this photo taken prior to NAL's reorganization and reshelfing of the entire collection in 1985/86 have been corrected. The oversize materials in the Princeton files are now shelved flat; however, poor quality paper prevents their being bound and makes preservation action necessary in the near future.

nature of this material. A very high proportion of agricultural publications are published by poor societies and poor governments with the intent of free distribution. Agriculture is a chief concern of most governments (national, state or local) and spreading the word quickly, broadly and cheaply is often their aim. These sources often publish on poorer grades of paper which are highly acidic and short-lived. In comparison, publications in the medical sciences are generally published by trade publishers, who are profit-oriented, and who are approaching the economic elite with the highest quality paper--which is far more durable as the National Library of Medicine's preservation study revealed.⁴

NAL's project is organized with a Study Team of seven members, each of which (except the Coordinator) serves as Chairperson of a Task Force to collect and analyze information on some specific aspect of preservation to make recommendations to the Study Team. The Task Forces and their members are as follows:

Environmental Conditions of the Collection Task Force: is concerned about those factors in the surroundings of the collection which affect its permanence. Deterioration of the collection can be slowed or accelerated extensively depending upon the conditions of its environment. The purpose of this group is to investigate the exposure of the collection to temperature and humidity patterns, light levels, cleanliness, airborne chemicals and physical support structures, etc., and to make recommendations for optimizing environmental conditions to prolong the life of collection materials.

Members of the Task Force are: Tom Neis, Chairperson; Elizabeth Goldberg, Leader; Debbie Hanfman, William Hauser, Dottie Heise, and Ron Young.

Physical Conditions of the Collection Task Force: is concerned with the extent of damage that has already taken place to the items themselves, concentrating at this time on books and serials. The state of the materials in the collection ranges from mint condition to damaged beyond usability. Some materials are brittle, some have broken bindings, foxing, or damage by microorganisms, and some are mutilated, contain paper clips, rubber bands, etc. This task force will collect statistical data for making projections on the condition of materials in the entire collection. It will provide information about what is required to solve the problems found and to prevent future problems from occurring to the extent feasible.

ring to the extent feasible.

Members of the Task Force are: Tom Neis, Chairperson; John Forbes, Leader; Diana Claburn, Michael Thompson, and Michael Chisley.

Organization of Preservation Activities Task Force: is concerned with the administrative organization of preservation activities. There are many ways in which effective preservation programs can be organized. At NAL, the activities are distributed throughout the organization, e.g., binding is in the Acquisitions and Serials Branch, cooperative microfilming and shelf maintenance in Lending Branch, conservation in Special Services Branch, etc. This group will critically review the manner in which preservation activities are accomplished in other organizations in comparison with the Library's current approach, looking for the most efficient structure for NAL.

Members of the Task Force are: Gary McCone, Chairperson; Susan Fugate, Holly Irving, Veronica Lefebvre, Laura Nauta, and Claudia Weston.

Disaster Control Task Force: In the past, NAL has had several fires and ex-



photo: D. Starr

Although NAL microfilmed millions of pages of agricultural publications on newsprint (both foreign and domestic) in the 1970's, thousands of issues remain to be preserved. Many of these are in deteriorating temporary bindings of heavy red paper, have disintegrating paper wrappings or separators, or have metal clamps or other damaging objects on them.



Another photo from the period before NAL's stack reorganization shows oversized publications on newsprint with temporary bindings all in an advanced state of deterioration. Such materials were given special care but minimal handling during the reorganization. They remain among materials needing preservation action urgently.

perienced flooding in its stacks. The Library has also received a number of bomb threats. The collection, though worth millions of dollars, is not insured, and even if it were, its holdings could not be replaced. It is very important that the Library do all that it can to prevent disasters from happening, to determine what mechanisms need to be in place in case a disaster should occur, and to determine how the Library will handle the disaster if it occurs. This Task Force will develop a plan which will improve the Library's ability to prevent and respond to disasters.

Members of the Task Force are: Martha Feldman, Chairperson; Gina Doorlay, Martha Hood, and Barbara Thompson.

Preservation Resources Task Force: is concerned with supporting the preservation program efforts of the Library with knowledge about preservation service organizations, products available, educational opportunities and a list of preservation experts. Tracking down so many different kinds of resources requires exceptional reference skills since many of the resources in which they are interested are not in any way identified as library preservation tools (milk crates, polyethylene, walk-in refrigerators, etc.). Identifying preservation resources, especially in the local area will enhance this program by increasing awareness among the staff and by making supplies, techniques, procedures and resource people more accessible.

Members of the Task Force are: Pamela Mason, Chairperson; Jeff Maier, Ellen Nollman, and Ruth Wertman.

Staff and User Education Task Force: is concerned with the day to day handling of material for the collection from the moment it arrives in the Acquisitions and Serials Branch through processing and then when in use by the reader. Its purpose is to get people to handle and treat these items with proper care. This group will review ways in which people can best be educated to handle collection materials which will slow its deterioration and eventual need for more costly preservation treatment.

Members of the Task Force are: Maria Stransky, Chairperson; Win Gelenter, Kathleen Hayes, and Karl Schneider.

Interinstitutional Cooperation Task Force: Some years ago Joseph Swab, then Head of Collection Maintenance Section, estimated that it would cost NAL about \$50 million to bind, microfilm, restore, and otherwise provide for the preservation needs of the collection, at \$2 million per year for 25 years. Needless to say, NAL and most sizeable libraries don't have the means to preserve their entire collection in an optimal manner. On its own, the best NAL can hope for is to preserve the highest priority materials. On a collective basis, however, working with other libraries, it is possible that a larger number of materials in subjects important to NAL can be preserved by sharing preservation information and avoiding duplication of preservation ac-

tivities. There are a number of national, regional and inter-institutional cooperative preservation activities in existence which are open to NAL participation. This Task Force will determine which activities hold the most benefits for NAL, assuming that a number of them would, and recommend NAL's participation accordingly.

Members of the Task Force are: Carol Ditzler, Chairperson; Donna Collins, Maria Pisa, and Susan Whitmore.

In addition to Task Force assignments three individuals are serving as resource people, Louise Bruce, Facilities Manager, because of her knowledge of the physical plant. Alan Fusonie and Joseph Swab because of their extensive knowledge and significant contributions to preservation at NAL. These three will serve as in-house consultants to any participants who need their help. Robert Butler who has extensive knowledge of collection development is also assisting the Project Coordinator.

The selection of individuals for participation in this effort was the result of a very thoughtful and methodical process. Consideration was given to each participant's experience, skills and attitude, while at the same time minimizing the overall impact on any given library unit in order to make the demands on the staff as equitable as practical.

The tentative target date for the Task Forces to complete their work is September 30. Task Force A will continue to collect and analyze data on the environmental conditions of the collection for a longer period of time in order to include data during the coldest months of the year.

When the Task Forces complete their work and submit their reports, (Task Force A submits an interim report) a meeting will be held to review the findings so that participants will have firsthand knowledge about each other's activities and have the opportunity to interact, raise questions, provide comments and identify important matters that



photo: D. Starr

A sample of volumes bound totally or partially in leather, losing their spines, their boards, and their labels. Although some of these could be recased, many are oversewn and have pages breaking out along the perforations where they were sewn. Thus they cannot be rebound and are candidates for other preservation action. It might be noted that the items seen here are USDA publications for which NAL has primary preservation responsibility. The Library has cooperated with Udata, which has microfilmed some USDA titles. These or other USDA titles could become candidates for text-digitizing in the future.

may have been omitted from the study or which require modification.

The Study Team will then begin its planning for an improved and expanded preservation program at NAL. The final report of the Study Team will present that plan with the work of the Task Forces serving as documentation and rationale for its recommendations. The Team will review the major needs, problems and issues identified by the Task Forces and determine what priorities will be assigned to them. Individual Task Force recommendations will be grouped as much as possible in regard to these considerations, and the proposed solutions will be assigned priorities to the extent feasible. All of these will be considered in the light of the constraints of staff, time, money, space, etc., in order to develop a practical implementation strategy. The final report will be provided to the Director in March 1989.

One might ask why NAL chose to conduct this study now. If preservation is so important, why wasn't the study implemented sooner, or, if resources are very limited, why do it now? There are several reasons:

1. People are much more aware of the preservation needs today than ever before. Hopefully, this awareness will result in greater support from the staff, other libraries, from users, and from all those with whom the Library interacts. As the importance of library preservation becomes increasingly recognized, it must be granted a higher priority in the allocation of library resources.

2. Because in the last few years there has been a flurry of research activity in library preservation, much more is known and understood today that can facilitate the undertaking of such a study. ARL has cleared a major path for libraries wishing to pursue preservation studies by conducting background work on the current awareness factor. ARL arranged for the compilation of a widely applicable procedure manual which

eliminates the need for great investments of time in determining procedural strategies. ARL also serves as a reference resource for answering questions and reviewing problems that arise making the study much easier than it ever would have been in the past and making it just barely feasible for NAL to implement with a staff already heavily committed with other assignments.

3. The timing may be right for seeking budgetary support. A number of years ago, the Director made a dramatic plea for preservation support in which he crumbled a brittle document in front of a budget committee. However, at that time Federal budget priorities were focused elsewhere. Today, even though other budget priorities still exist, preservation might get a better hearing because of the pervasive realization of its importance that has occurred over the last few years. When would be a better time to try?

Some of the recommendations made by the Study Team will undoubtedly be implemented regardless of whether additional budgetary support can be obtained. For all of them to be implemented might not be feasible depending on the amount of support received, but a significant enhancement of the NAL preservation program will result from this effort.

References Cited

- ¹ Darling, Pamela W. with Duane E. Webster. *Preservation Planning Program: An Assisted Self-Study Manual for Libraries*. Expanded 1987 ed. Washington: Office of Management Studies, Association of Research Libraries, 1987. 117 p.

- ² Darling, Pamela W. *Preservation Planning Program Resource Notebook*. Rev. ed. by Wesley L. Boomgaarden. Washington: Office of Management Studies, Association of Research Libraries, 1987. np.

- ³ Council on Library Resources. *Brittle Books: Reports of the Committee on Preservation and Access*. Washington: The Council, 1986. 31 p.

- ⁴ Humphreys, Betsy L. et al. *Preservation of the Biomedical Literature: A Plan for the National Library of Medicine*. Bethesda, MD: National Library of Medicine, 1985. 55 p.



Another photo from pre-reorganization of the stacks shows volumes losing their temporary bindings, their original paper bindings, and their labels, as well as improper support. The volumes with temporary bindings have missing issues, and probably none of these could be bound today because of deteriorating paper, and thus would be candidates for other forms of preservation.

Photographs in this article, where attributed to D. Starr, were taken to illustrate preservation problems within a few weeks prior to publication of this issue of *ALIN*. The remaining photographs were copied from slides held by Special Collections, and all were dated April 1971. Most of the poor shelving was corrected in various stacks reorganizations in the 70's and 80's; the preservation problems persist.

NORTH CAROLINA BIOTECHNOLOGY CENTER

by Barry D. Teater

The Information Program of the North Carolina Biotechnology Center manages five unique databases containing comprehensive information on commercial biotechnology. Information from these databases is available to the public on a cost-recovery basis.

The Program's **Titles Database** contains citations to key articles, reviews, and general overviews on commercial biotechnology. Articles of interest for this database include those describing a scientific breakthrough; management of technology; personnel; education; products or markets; investment or financing; patents and legal issues; U.S. or international efforts; manufacturing and production; societal or ethical issues; regulation and legislation; state and government support; the industry as a whole or substantive information about an individual company; or any subject related to biotechnology in North Carolina. Delivery of cited articles is available.

The **Companies Database** is an information source on biotechnology companies in the United States. Records contain information on more than 450 small biotechnology firms and large corporations that work with recombinant DNA, monoclonal antibodies, or new cell-culture technologies. Data include location and telephone number; areas of interest; personnel numbers; names of top management; company products on the market and in development; financing information; investors; and technologies used. Searches of this database are available on a cost-recovery basis, with an average search costing about \$200.

The **North Carolina Companies Database** tracks about 100 companies headquartered in or having sites in North Carolina that are developing or marketing biotechnology or biotechnology-related products. Venture capital, consulting, legal and other firms related to biotechnology will be added later this year. A free directory, *North Carolina Companies in Biotechnology*, was prepared from this database in February.

The **Actions Database** tracks major external and internal actions by biotechnology companies. External actions, often between two or more companies, include equity purchases, acquisitions, licensing or marketing agreements, joint ventures, and research contracts. Internal actions include product announcements, patents, and new facilities. Information is also included on the firms, products, and technologies involved. The database contains more than 2,400 records from 1981 to the present. Searches of the database are available on a cost-recovery basis, with the average search costing about \$200.

The **States Database** contains information on state-funded biotechnology centers in the United States. It includes data provided by state centers through questionnaires, telephone interviews, and published literature. A printed directory from this database is produced

periodically and is available for \$10 (free to non-profit groups).

Two other databases are being amassed and will be completed later this year. One will contain information on North Carolina scientists involved in biotechnology, and another will feature information on biotechnology-related companies in Japan. Directories will be published from these databases.

Searches of the Program's databases are performed by trained members of the Biotechnology Center's staff, and reports are sent by first class mail or by telefacsimile usually within one day of their request. Reports can be produced in print or diskette format. To request a search, call 919-541-9366 and ask for the Information Program. North Carolina clients receive a substantial price break as a result of the Center's funding structure.

The Information Program has provided data to a wide variety of users since its inception in late 1986. In 1987 the U.S. Congressional Office of Technology Assessment (OTA) commissioned the Program to provide data on the U.S. biotechnology industry. Information collected, analyzed and presented to the OTA by the Program is an integral part of the OTA's latest report on U.S. investment in biotechnology.

The Program has prepared many specific reports on biotechnology companies and their products, interests and interactions for a variety of corporate clients. Other data have been furnished to the White House Science Adviser's Office, the National Science Foundation, the Department of Commerce, and several foreign governments.

The Program's director, Dr. Mark D. Dibner, has written a book of data and analysis of the U.S. biotechnology industry titled *Biotechnology Guide USA: Companies, Data and Analysis*. The 400-page Guide was published in July 1988 by Stockton Press (1-800-221-2123).

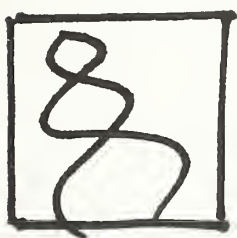
As a resource for the understanding of all aspects of commercial biotechnology, the Program has strived to be a repository of public data covering a wide variety of areas. For more information on the Program, contact Dr. Dibner or Nancy G. Bruce, Senior Information Specialist, at the North Carolina Biotechnology Center, P.O. Box 13547, Research Triangle Park, NC 27709, phone 919-541-9366.

In addition to the Program's informational services, the Biotechnology Center's Education and Public Affairs Division produces several materials relating to the Center's activities and biotechnology in North Carolina. *BT Catalyst* is a free monthly newsletter that reports on and serves the state's growing biotechnology industry. *Techne* is a free quarterly newsletter that reports on the Center's programs and activities. The Division has also produced a 14-minute videotape, *Biotechnology: Breaking New Ground*, which documents for general audiences Ciba-Geigy Corp.'s 1986 field test of genetically altered tobacco in North Carolina. The tape is available for purchase or loan. To subscribe to *BT Catalyst* or *Techne*, or to obtain a copy of the videotape, contact W. Steven Burke, Director of Education and Public Affairs, at 919-541-9366.

Created in 1981 as the nation's first statewide initiative in biotechnology, the North Carolina Biotechnology Center is a state-funded, non-profit corporation that promotes biotechnology research, business and public awareness ac-

tivities statewide. Its mission is to assure that North Carolina gains long-term economic benefits from the development and commercialization of biotechnology.

Barry D. Teater, a former newspaper reporter and copy editor, writes and edits *Techne*, the *Annual Report*, news releases and other publications of the North Carolina Biotechnology Center.



Biotechnology

The Biotechnology Information Center (BIC), coordinated by Jean Larson, is in the process of updating some of its previous publications, as well as initiating some new publications. Currently, the center makes available the following *Quick Bibliographies (QB's)*:

- Tissue Culture-Plants, 1984-1986 (88-50)
- Embryo Transfer in Animals, 1979-1986 (87-33)
- Biogas from Biomass, 1985-1987 (88-23)
- Bovine Somatotropin/Growth Hormone, 1979-87 (88-18)
- Germplasm Maintenance and Storage, 1970-1987 (88-41)
- Biotechnology: Gene Expression in Plants, 1986-1987 (88-19)
- Biotechnology: Plant Protection 1980-1985 (86-62)
- Biotechnology: Single Cell Protein, 1979-1985 (86-53)
- Biotechnology: Risk Assessment, 1973-1986 (86-64)
- Biotechnology: Ti-plasmid and Other Plant Vectors, 1980-1985 (86-63)
- Biotechnology in Food Science and Technology, 1981-1986 (87-29).

An update is planned for "Biotechnology: Plant Protection," and "Biotechnology: Ti-plasmid and Other Plant Vectors." New *QB's* in process include biotechnology as it relates to forestry, crop plant improvement, gene expression in molds, yeasts and higher plants, patents in agriculture, field release of genetically engineered organisms, food adulteration, and manuals of recombinant DNA techniques. In addition, an update of "Sources in Biotechnology: A Sampling of Biotechnology Information Sources Available at NAL" was recently completed by the BIC staff.

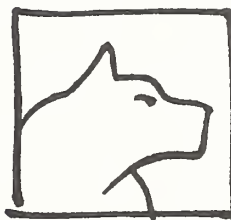
The most recent *Special Reference Brief (SRB)* available through the center is "Bovine Growth Hormone and the Dairy Industry," (86-03). This *SRB* was developed in response to the extreme interest shown by dairy farmers and the dairy industry to this research area. Although bovine growth hormone (bGH) has not yet been approved for general use, the effects of this technique will have an extensive impact on the dairy industry if and when it is approved. The *SRB* contains a brief overview and citations for the most recent and relevant publications. Another *SRB* which is

being generated in response to public interest will focus on the subject of transgenic animals. This past April, the Patent and Trademark Office issued a patent on a transgenic animal for the first time. There is considerable debate as to whether this action was appropriate. As a result, new legislation has been submitted to Congress concerning the regulation of the patenting of genetically engineered animals. The BIC staff are in the process of producing the *SRB* as a source of background information as well as compiling the new legislative information as it becomes available.

Finally, one other project proposed by the BIC staff is an information packet on biotechnology to be distributed to farmers. Much of the information on the agricultural biotechnology that affects these individuals rarely reaches the farming community. The Center is considering the kind of information that the farming community needs to facilitate their understanding of this complex subject.

A personnel change occurred in the BIC in May of this year. A new staff member, Suzanne Nanis, was added as a Technical Information Specialist to assist Jean Larson. Suzanne has been working in research labs for the past 8 years and came to NAL from a lab in ARS. If you need assistance from the BIC, contact either Suzanne at 301-344-3218 or Jean at 301-344-1215.

--Suzanne Nanis



Animal Welfare

The Animal Welfare Information Center (AWIC) received funding for FY '88 and has resumed collecting and producing information products that assist researchers and laboratory animal care personnel as specified under the "Improved Standards for Laboratory Animals Act" of 1985. Jean Larson, AWIC coordinator, has hired a staff of 5 persons who bring a unique combination of education and experience to the center. Janice Swanson arrived in early April as a full-time Technical Information Specialist (TIS). Janice is an AWIC alumnus from FY'87 and is currently completing her doctoral degree in animal behavior at the University of Maryland at College Park (UMCP). Kevin Engler and Karen Clingerman joined AWIC in early May. Kevin, a full-time TIS for AWIC, has a master of science degree in animal nutrition from UMCP and has recently returned from a 2 year tour with the Peace Corp in the Philippines. Karen is completing her masters of science at UMCP in the field of animal physiology and behavior and is a part-time Library Tech for AWIC. In June, Roxane Hope, a psychology senior at Yale, and Sean Gleason, a senior government major at UMCP, joined the staff as full-time Library Aides.

Several information products are currently available from AWIC and may be requested through the center. Available

materials are as follows:

Quick Bibliographies

Welfare of Experimental Animals 1979-1987. QB 88-17.

Animal Welfare Legislation. 1979-1987. QB 88-40.

Search Tips Series

Searching AGRICOLA for ... Animal Welfare. STS-01.

Listings

Audio-Visuals Related to Animal Welfare.

Training Materials Related to Animal Welfare.

Miscellaneous

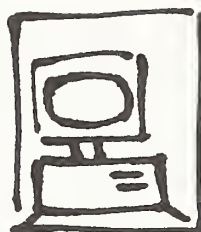
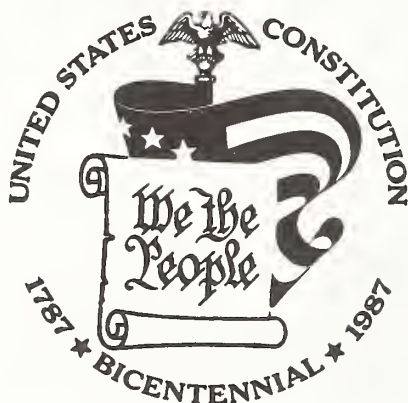
Animal Welfare Information Center Brochure.

A variety of new information products are currently being developed by AWIC staff and will be available late this summer. Three separate *Special Reference Briefs* (SRB's) will cover topics critical to the welfare of laboratory animals. Alternatives to using animals in research, the Draize test, and euthanasia are the subjects to be covered. Also, a series of quick bibliographies on different laboratory animal diseases are in progress. Federal and state listings of laws and proposed legislation concerning animal welfare are being compiled and annotated for publication. All currently available and future publications from AWIC will be posted on the National Agricultural Library's electronic bulletin board system (EBB). A guide to the use of the EBB is available upon request from the library or through AWIC.

The AWIC exhibit was displayed at two professional meetings during the month of July. The American Veterinary Medical Association invited AWIC to exhibit during its annual meetings in Portland, Oregon July 17-21. During the same week AWIC exhibited at the annual American Society of Animal Science meetings at Rutgers University in New Brunswick, New Jersey. Earlier in the month AWIC exhibited at AGRI-TECH '88 held at the Virginia Polytechnic Institute in Blacksburg, Virginia on July 7-8. The AWIC table top exhibit is available for loan. Please contact AWIC for additional information.

To request information or services, AWIC staff may be reached at (301) 344-3212 or 344-3704. Written requests may be mailed to the Animal Welfare Information Center, National Agricultural Library, Room 304, Beltsville, MD 20705.

--Janice Swanson



Technology Applications

CONFERENCE ON SCANNING METHODS

On November 17-18, 1988, the National Agricultural Library will sponsor a "Conference on the Application of Scanning Methodologies in Libraries" in Beltsville. The conference will bring new applications and product information to attendants on uses of scanning and optical character recognition in the context of bibliographic projects. Libraries are currently exploring the use of electronic scanning and digitization as a means of enhancing access to printed materials while increasing productivity and effectiveness. Evaluation studies under way at national libraries and other research institutions have important implications for retrospective conversion, cataloging, indexing, preservation, and access. The conference will serve as a forum for disseminating information on state-of-the-art scanning technology and its uses in the library and information field.

The conference will feature a keynote address by Robert Hayes, Dean of the School of Library and Information Science, the University of California at Los Angeles, and will also include the following speakers and topics:

"Automated Document Structure Analysis," Stuart Weibel, OCLC;

"The Library of Congress Project with Optiram," Leo H. Settler, Jr., The Library of Congress;

"Comparison of Scanning Methodologies for Conversion of Typed, Printed, Handwritten, and Microfilmed Materials," William Holmes, National Archives and Records Administration;

"The Library of Congress's Digital Imaging System," Audrey Fischer, The Library of Congress;

"Scanning and Digitizing Technology Employed in the National Agricultural Text Digitizing Project," Nancy Eaton, University of Vermont; Pamela Andre and Judith Zidar, National Agricultural Library;

"Kellogg Project: Access to Adult Education Materials," Elizabeth Oddy and Terry Keenan, Syracuse University;

"Access to Holographs, Poetry Collection," Robert Berthoff, State University of New York, Buffalo;

"FileNet at the Food and Drug Administration," Kenneth Krell, FDA;

"Desktop Digitization: Prospects and Problems," Bradford S. Miller, Northrup University.

For a preliminary program and registration information, contact Phyllis Bickerton, Office of the Chief, Technical Services Division, National Agricultural Library, Room 100, 10301 Baltimore Boulevard, Beltsville, MD 20705.

Or Call (301) 344-3834.

--Sarah E. Thomas

NAL AND LAND-GRANT LIBRARIES ESTABLISH NETWORK

At the American Library Association (ALA) annual meeting in New Orleans in July, the National Agricultural Library and representatives of land-grant libraries jointly announced the formation of a network of libraries and information centers in the fields of agriculture and related sciences. The network is not yet named or formally structured. Interested libraries and information centers are invited to participate in the network. It is intended that the network will include anyone interested in agricultural information and related problems.

Officers of the network were introduced at the meeting: Nancy Eaton, Director of Libraries, University of Vermont, is President. John Beecher, Director, North Dakota State University Library, is Vice President. Melvin George, Director of Libraries, Oregon State University, is Treasurer, and Carol Boast, Agriculture Librarian, University of Illinois, is Secretary. The officers of the network will be meeting at NAL in October to set up a working organization structure, to set immediate objectives and policies, to plan operations and the next network meeting, and to prepare proposals for naming the network, developing the formal structure, ensuring participation of all interested persons, institutions, and organizations, and determining how members will interact with one another.

The next meeting of the network will be held in conjunction with the American Library Association Mid-Winter Meeting in Washington, DC, in January 1989. The time and place of the meeting will be announced later this fall.

The nascent network was proposed by NAL to representatives of agricultural libraries and information centers at the ALA Mid-Winter Meeting in San Antonio, January 12, 1988. On March 14, 1988, Sarah E. Thomas, Chief, Technical Services Division, NAL, sent a letter to agricultural librarians with the formal proposal; in part, Dr. Thomas wrote: "One of the concerns discussed at the meeting [on

January 12] was the need to establish a more structured forum for discussing agricultural information issues on a national basis." She emphasized NAL's role as an equal with other institutions, and indicated: "NAL strongly supports the establishment of this group which will further dialogue on agricultural information issues," and that such "a structured group could provide guidance to the direction of our programs and strengthen them, especially if NAL should develop a sizable granting program."

Dr. Thomas' letter on March 14, also set up a nominating committee to solicit nominations for "officers to serve until a Board is elected," proposed the membership of a Board, and indicated the initial responsibilities of the officers to include "the democratic development of bylaws, policies, meeting agenda, and other relevant activities."

The nominating committee consisted of Joanne Harrar, Director of Libraries, University of Maryland; Michael Kinch, Assistant Head, Sci-Tech Library, Oregon State University; Arlene Luchsinger, Librarian, Science Library, University of Georgia; Shelly Phipps, Acting Librarian, University of Arizona; and Sarah Thomas. On May 24, 1988, the committee sent the names of proposed officers and a ballot to the directors of land-grant university libraries, with an indication that the results would be announced at the network meeting on July 12 in New Orleans.

Those wishing to be included on the network mailing list may write to National Agricultural Library, Network Mailing List Room 203, 10301 Baltimore Boulevard, Beltsville, MD 20705. NOTE: Those institutions on the *Land-Grant Libraries and Other Cooperating Institutions* list maintained by NAL will be on the network mailing list. In most cases either the director of the library or the head of the appropriate science library receives mailings from this list.

--Joseph N. Swab



photo: J. Swab
NANCY EATON
President



photo: J. Swab
JOHN BEECHER
Vice President



photo: J. Swab
MELVIN GEORGE
Treasurer



photo: D. Starr
CAROL BOAST
Secretary

AGRICULTURE IN CHINA EXHIBIT

On July 25 the National Agricultural Library and the Associates of NAL in cooperation with the Embassy of the People's Republic of China held a Dedication Ceremony opening an exhibit of photographs, books, and artifacts entitled "Agriculture in China: A Visual Landscape." The exhibit, which can be seen in the NAL lobby through the end of September, consists of 40 large color photographs and

Following the Dedication Ceremony, the Associates of NAL, Inc., sponsored a reception which included refreshments in the form of Chinese hors d'oeuvres and beverages. Additional beverages were provided by the Embassy.

--Joseph N. Swab

AMBASSADOR HAN'S ADDRESS

Your Honor Richard E. Lyng, Dr. Orville Bentley, Mr. Joseph H. Howard, Ladies and Gentlemen:

I am most delighted to attend the opening ceremony of the photo exhibit on "Agriculture in China." This is certainly an occasion worthy of congratulations. Taking this opportunity, I would like to express my appreciation to all who have initiated and worked for the success of this exhibit, particularly, Dr. Alan E. Fusonie and Ms. Verna Shen.

These photos provide a glimpse of changing agriculture in China. For the sake of perspective, let me briefly describe what has happened to China's agriculture in the past years.

As you may know, 80% of China's one billion people live in the countryside. To improve the well-being of its rural population has always been the top priority of the Chinese Government. However, past efforts failed to produce satisfactory results, and the rural living standard left much to be desired. To change this state of agricultural backwardness radically, the Chinese Government introduced sweeping reforms in the countryside beginning in 1979.

Three major steps were taken in China's rural reform: First, the household contract responsibility system was introduced. The collectively ploughed communal farmland was contracted to individual households for farming. Along with it, the egalitarian distribution of income was abolished. This



photo: D. Starr

(L-R) Mr. Howard, Mr. Lyng, Ambassador Han, and Mr. Long.

miscellaneous other photographs loaned by the Embassy and from NAL's Forest Service Photographs Collection, herbarium specimens loaned by the National Herbarium at the U.S. National Arboretum, farm tools loaned by the Agricultural Research Service, rare books from NAL's Special Collections, and other artifacts. Captions for most of the objects are in both English and Chinese, provided by Embassy and NAL staff, with Chinese calligraphy by Peter Ho (spouse of Judith Ho of NAL).

The Keynote Address at the Dedication Ceremony was given by His Excellency Han Xu, Ambassador from The People's Republic of China. U.S. Secretary of Agriculture, Richard Lyng, welcomed the large assembly of visitors and USDA staff and introduced Ambassador Han. Other speakers for the occasion, who provided welcoming remarks, were: Robert Long, Deputy Assistant Secretary Science and Education, USDA; Joseph H. Howard, Director, NAL; and Alan Fusonie, Head, Special Collections, NAL, who also served as Master of Ceremonies. Verna Shen of NAL's Cataloging Branch acted as hostess for the Chinese visitors and at the reception following.

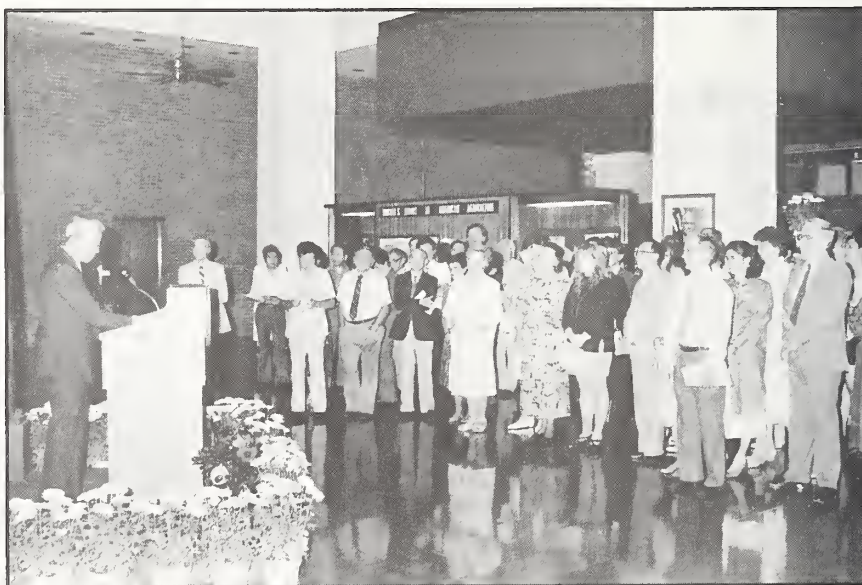


photo: D. Starr

About a third of the visitors and USDA staff assembled to hear Ambassador Han's speech.

means that peasants have more to keep to themselves after handing over to the state the amount stipulated in the contract. This gives peasants great incentives for growing grain.

The second incentive was offered when the state raised--by a big margin--the price it pays for farm products from peasants, a reversal of the past excessively low fixed price. Using price to induce peasants to grow more grain has proved much more effective than the old rigid mandatory production quotas.

Third, the state monopoly purchase of farm products was stopped. Peasants now have more say over what to grow and are free to sell their products on the market.

The result produced in China's rural reform is nothing less than staggering:

In the past nine years, China's agricultural production has registered an average annual increase of 4%, and the average per capita income of the rural population has more than doubled. China has only 7% of the world's arable land, yet thanks to its rural economic reform, it has produced enough to feed and clothe 22% of the world's population. This cannot but be a great achievement by any standard. On the other hand, we are keenly aware that we still have to go a long way before we can catch up with others. And there is no cause whatsoever for us to feel complacent.

As rural productivity rose, around 80 million people in the surplus rural labour force have gone into rural industry; their output exceeded that of agriculture for the first time in 1986. As for those who remain on the farm, they are increasingly gearing their production to meet market demand. All this suggests that China's autarkic rural economy is going through a profound transition into a commodity economy.



photo: D. Starr

Visitors at the exhibit reception talk and view the exhibit, part of which is in the cases in the background.

As I have just said, 80% of China's one billion population is rural, the improvement in their well-being has played a crucial role in enhancing the stability and prosperity of the Chinese nation as a whole.

I am glad to see that close agricultural ties have been set up between China and the United States. With the encouragement of the two governments, fruitful cooperative agricultural research projects have been undertaken between Chinese and American agronomists. In 1987 alone, 21 such projects were carried out. Under this year's program, another 20 projects will be exchanged and so far, everything has been going on very smoothly.

Chinese-US agricultural cooperation is a two-way traffic that benefits both countries. Thirty-three percent of the wheat China buys from overseas comes from the United States. As it is modernizing its farming, China is eager to absorb the advanced American farming technology. Highly mechanized American farming is of tremendous interest to Chinese farmers, and your experience in raising lean hogs is of great value to us. On its part, China is quite good at applying organic fertilizer in farming. Moreover, it leads the world in cultivating hybrid rice. In addition, as the home of soybean, China has much to offer in terms of fine strains of seeds. In a word, much can be shared by the two sides. Agricultural cooperation between China and the United States has vast potentials for development. I am convinced that as Chinese-US relations grow stronger, our cooperation in agriculture will yield increasingly richer results.

Thank you.



photo: D. Starr

Another third of the crowd listen to Ambassador Han's address at the Dedication Ceremony for the "Agriculture in China" Exhibit, part of which is in the cases behind the audience.



LIVING LEGACY TREE PLANTING



The speakers: (L-R) Judith Williamson, Earl Yingling, Ruth Spurrier, Alan Fusonie, Kathryn Nicodemus, and Eliot Waldell.

photo: Steven M. Goss

THE PROGRAM

As a living legacy commemorating the Bicentennial of the U.S. Constitution, the 50th Anniversary of the Maryland Extension Homemakers Council (MEHC), and 1988 Arbor Day, two seedlings of the Wye Oak were planted on the grounds of the National Agricultural Library on April 26, 1988. In the program preceding the tree planting, Kathryn Nicodemus, President of MEHC, presented NAL Director, Joseph H. Howard, with a copy of the history of the MEHC,

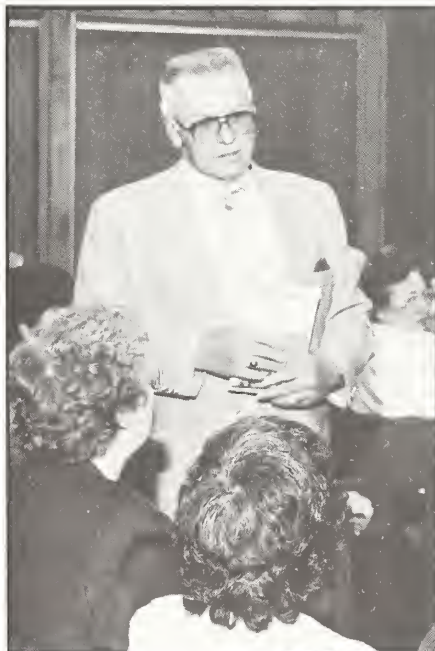


photo: Steven M. Goss

Earl Yingling answers questions after his talk; he holds a copy of a book on the Wye Oak.

entitled "Today's Home Builds Tomorrow's World," which was also the theme title of the Council's first educational campaign in 1938. Ruth Spurrier, Chairman of the MEHC's Committee on the Bicentennial of the Constitution, was the organizer of the event and Mistress of Ceremonies of the program at NAL. Dr. Judith Williamson of the Extension Home Economics Department,

University of Maryland, represented the University and the Maryland Cooperative Extension Service. Eliot Waldell represented the U.S. Bicentennial of the Constitution Commission. Alan Fusonie, Head of Special Collections and NAL coordinator of the event, accepted a commemorative certificate for the Library from Ms. Nicodemus.

KEYNOTE ADDRESS

Mr. Earl L. Yingling, retired roadside and shade tree specialist for the Maryland Department of Natural Resources, the Maryland Forest Service, was the keynote speaker. During the last 20 of his more than 40 years with the Maryland Forest Service (from January 5, 1935, to April 3, 1975), Mr. Yingling supervised the care of the Wye Oak, the Maryland State Tree. He is a member of the International Society of Arboriculture,

and served as president of the Southern and Mid-Atlantic chapters. He is also a member of the Maryland Arborist Association. He is presently engaged in Christmas tree farming at the Thomas Tree Farm in Manchester, Maryland. Mr. Yingling gave a history of the Wye Oak and numerous anecdotes about it in his talk. He also recounted how as a 14-year old boy employed on a tree planting project, he met Gifford Pinchot, Governor of Pennsylvania, and father of forestry in the U.S. He said that it didn't mean much to him at the time, but later in his life he was glad that he had taken the opportunity.

THE WYE OAK

The Wye Oak is known to be more than 450 years old. It was already nearly a century old, or perhaps more, when it was transferred to the Maryland colonists on the Eastern Shore in 1652 by the

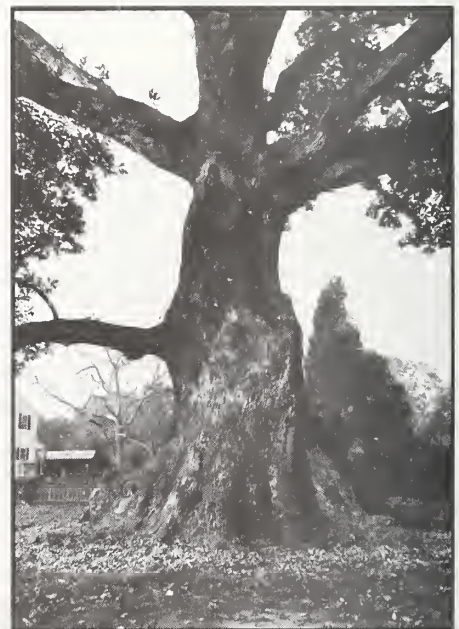


photo: Steven M. Goss

The Wye Oak: the massive 17-foot diameter trunk, a small portion of the 160-foot spread, and 102-foot height.



photo: Steven M. Goss

Ms. Nicodemus and Mr. Waldell prepare the hole for the first tree which Mr. Yingling unbags as the crowd watches.

Susquehanna Indians. In 1665 the site on which it is located became the property of Thomas Williams, who owned it till 1704, when it was sold to Morris Jones. Thereafter, each sale of the property is a matter of public record up through September 20, 1939, when Governor O'Connor purchased the tree and 1.7 acres of the land it occupies for the State of Maryland for \$5,000. Located in the village of Wye Mills, the Wye Oak is the largest white oak on record in the U.S., and so far has defeated all challengers on the official register of large trees. One foot from the ground, the tree has a circumference of 51 feet, 11 inches, a diameter of about 17 feet.

It has a 160-foot spread, and is 102 feet high. Although it has been under a variety of programs of care since about 1914, it has suffered some losses over the years. In 1953 it lost a 20-ton limb; in 1956 a nearly 30-ton limb fell; and in 1959, a cable which was helping support another limb broke, and the wood of the lost limb weighed over 35 tons. A number of smaller losses have occurred, but the tree, under a

program of intensive care since 1959, is healthy and produces new wood each year.

The 1.7-acre site, Wye Oak State Park, is the smallest state park in Maryland. The park also contains a small brick school house, dating from the 1700's. Because of the age of the tree and its historical importance, Mr. Yingling began a program to raise seedlings of the Wye Oak in 1962. He picked up and planted the first bushel of acorns that year, and since 1963, over 17,000 second-year seedlings have been sold to people in many parts of the U.S. He also sent a half dozen seeds to Germany and received word that three of them grew into healthy seedlings.

So that there will always be a Wye Oak at the Wye Oak State Park, last December a young tree, raised from a Wye Oak acorn, and having about a 6-inch diameter and a 6-ton root-ball, was dug with a tree spade and planted behind the parent tree. Mr. Yingling indicated that the source of the seedlings is the Buckingham State Forest Nursery.

THE EXHIBIT AND RECEPTION

In conjunction with the event an exhibit entitled "200 Years of Women in Agriculture," was on view in the NAL lobby (till mid-July). It included photos and literature about women in areas such as agricultural politics, homesteading, and running the family farm, and on women's rights. Also featured were quilts made by Mrs. Alice Skarda, a member of MEHC and the Prince Georges Historical Quilt Society.

Following the program and the tree planting ceremony, the MEHC sponsored a reception and buffet luncheon on the 14th Floor balcony of NAL.

--Joseph N. Swab



photo: D. Starr

Mr. Yingling positions the first tree in its location near the NAL pond.



photo: Steven M. Goss

Harry Dengler, retired scientist and member of the Associates of NAL, waters the first tree behind the NAL building.



News Notes

NAL VACANCY ANNOUNCEMENT

Position: Librarian, GS-1410-12, National Agricultural Library, Public Services Division, Office of the Chief, Beltsville, Maryland.

Duties: Serve as Coordinator of NAL programs and services for the Agricultural Research Service (ARS), the primary research agency within USDA. The person hired will be responsible for coordinating cooperative library services between NAL, research centers of ARS which have their own libraries, and ARS research stations that lack library facilities. The staff position involves working with NAL and ARS staff at all levels in the provision of document delivery, reference, online search, and other services. The position is a permanent one at the GS-12 level, with a minimum salary of \$33,218. Relocation expenses will be authorized.

Closing Date: September 26, 1988.

How to Apply: Candidates should request a copy of Vacancy Announcement Number *ARS-H28-150* from USDA, ARS, Personnel Division, Operations Branch, Rm. 123, B-003, BARC-West, Beltsville, Maryland 20705, (301) 344-2701 or call the NAL Public Services Division at (301) 344-3834. Candidates must submit an Application for Federal Employment, Standard Form 171 (also called Personal Qualifications Statement), following the instructions in the "How to Apply" section of the vacancy announcement. Transcripts (or a completed OPM form 1170 "List of College Courses...") should accompany the application, or a note indicating that transcripts have been requested and the date by which they should arrive.

Candidates *must* also apply to be on the Washington, D.C. area register for Federal librarians (those candidates already on the register in the Washington, D.C. area, Federal employees in the GS-1410 series and/or those having reinstatement eligibility do not need to complete a register application). The register for candidates seeking Federal librarian positions in the Washington, D.C. area is open and accepting applications until *September 30, 1988*. Applicants who need to apply to be on the Federal librarians register may request a packet of information and application forms by calling the number below. **Please make note of the deadlines for both applications: September 26 for the vacant position and September 30 for the Federal librarians register.**

If you have questions about the position or the application process, call Keith Russell or Maria Pisa at (301) 344-3834.

--Maria Pisa

NAL PARTICIPATES IN LC INFORMATION TECHNOLOGY UPDATE

The latest in affordable information technology for libraries will be discussed and demonstrated at the third annual Information Technology Update on Thursday, September 22, in the Mumford Room, the James Madison Memorial Building, the Library of Congress.

Sponsors of this year's program are the Federal Library and Information Center Committee (FLICC) and the Information Technology Group of the District of Columbia Chapter of the Special Libraries Association (DC/SLA). The theme is "Affordable Alternatives for Libraries and Information Centers."

There is no charge for the session, and advance registration is not required. Onsite registration will begin at 8:45 a.m., and the program at 9:00 a.m.

Presentations by distinguished speakers include "Technology Forecast: A Guide to the Information Galaxy," "Document Preservation by Electronic Imagery," a series of presentations on new technologies, and some basic tenets for analyzing a library's automation needs and ways to acquire new technologies.

Library technology applications, to be demonstrated from 1:30 to 3:30 p.m., will include a **National Agricultural Library** demonstration of laser videodisk uses, including the Forest Service Photo Collection and full-text publications.

For a program or additional information contact FLICC at (202) 287-6055.



NAL PARTICIPATES IN WORKSHOP ON FEDERAL DATABASES

How librarians and information center staff can use Federal databases to find current information on topics as diverse as agriculture, energy, medicine, and economics, is the topic of a three-day workshop in Denver, Colorado, October 5-7.

The Denver Regional Library Workshop on Accessing Federal Databases will be conducted by the Federal Library and Information Center Committee (FLICC) and its operating network, the Federal Library and Information Network (FEDLINK), in cooperation with the Bibliographical Center for Research (BCR) in Denver. Sessions will be held in the auditorium on the 12th floor of the Cherry Creek Corporate Center, 4500 Cherry Creek Drive South, in Denver.

Database experts will discuss information topics and citations in Federal databases in morning sessions, and afternoons will be devoted to hands-on practice. Karl Schneider of the **National Agricultural Library** will present **AGRICOLA** on Thursday, October 6.

For a program or information on registration, fees, housing, etc., contact FLICC at (202) 287-6055.





Staff Update

LESLIE A. KULP



photo: D. Starr

LESLIE A. KULP

As Chief of NAL's Collection Development Staff since 1984, Dr. Kulp has been responsible for the development and coordination of collection policy, evaluation of the NAL collection, establishment of processing priorities, solicitation of gift materials, and the coordination of collection activities with research libraries.

Two interinstitutional agreements he completed in recent years are with the National Library of Medicine, defining

the collection responsibilities of each library in the areas of veterinary science and human nutrition (see *ALIN*, 11(2):1-4, Feb. 1985, and *ALIN*, 13(3):1-5, Mar. 1987, respectively).

He also coordinated the compilation of the Agriculture Division of the Conspectus as well as its supplemental guidelines for the Research Libraries Group, an association of university libraries cooperating to enhance research collections and access to them. He has worked with staff at the Library of Congress to define responsibilities of each library in areas where subject interests overlap. He has just recently completed a revision of the NAL *Collection Development Policy*, which will be published later this year. As an extension of the collection development responsibility, he has been given responsibility for managing NAL's participation in the ARL Preservation Planning Program Study, which is the subject of his lead article in this issue of *ALIN*.

In 1970 Dr. Kulp joined the NAL staff as Head of the Indexing Section. In 1972 he was promoted to Chief of the Acquisitions Division (which included the Serials and Acquisitions Sections), and in 1982 he became Chief of the Resource Development Division (which included the four technical services sections, Acquisitions, Serials, Cataloging, and Indexing). During his career he has represented NAL on numerous task forces and committees, and he has taught library science courses at the USDA Graduate School for 18 years. He also received the EEO Award for Supervisors for

"contributions to employee development."

Prior to coming to NAL, Dr. Kulp was in the Science and Technology Division of the Library of Congress, and before that was a research scientist at the George Washington University. He earned his Ph. D. in Entomology at the University of Maryland in 1965. Subsequently at the University of Maryland he also earned the M.L.S. in 1974.

In his leisure time Dr. Kulp most enjoys good times with his family which includes three sons, a son-in-law, a daughter, a daughter-in-law, and four grandsons. Other outside activities include reading, gardening, fishing, jogging, and, until recently, coaching little league baseball.



HOWARD RECEIVES AWARD FOR SUPERIOR SERVICE

Friends and colleagues of Joseph H. Howard, Director, NAL, gathered together on August 4 to celebrate his receipt of the USDA Superior Service Award. The award had been officially presented to him at the USDA Honor Awards Ceremony on June 22. The award citation praised Mr. Howard's leadership in the development, application, and transfer of advanced information technologies, resulting in significant program benefits for USDA agencies, and users of NAL services worldwide. In his remarks at the reception, Assistant Secretary of Agriculture for Science and Education, Orville G. Bentley, also commended the NAL staff for the support and dedication to Library programs that made such an award possible.

--Mary Silva



photos: D. Starr

Don Flowers of the American Floral Endowment (above) and Dr. Orville Bentley, Assistant Secretary of Agriculture, Science and Education (below), congratulate Joe Howard.



New Serials Received at NAL

Advocate. Denver, CO: American Humane Association. b-m. Vol. 1, no. 1 (Nov. 1983)-
HV4701.A35

Agricultura = Landbrug = Agriculture [Eurostat]. Luxembourg: Office des publications officielles des Communautés européennes. a. 1986-
HD1920.5.S7

American Fisheries Society Symposium: (proceedings). Bethesda, MD: The Society. Irregular. 1-
SH3.A5

Annual Report. Cotton Marketing Board, Zimbabwe. (Harare): The Board. a. 1984/1985-
HD9087.Z55Z5

Annual Report. International Maize and Wheat Improvement. México, D.F., México: The Center. a. 1985-
SB183.I54

Biologica. Patiala, India: Punjabi University, Publication Bureau. s-a. Vol. 1, no. 1 (June 1985)-
QH301.B5

Circular (microform). United States Department of the Interior, Fish and Wildlife Service. Washington: Fish and Wildlife Service; for sale by the Supt. of Docs., U.S. G.P.O. Irregular. No. 1-352.
Fiche S-122

Deutsch-Amerikanische Geschäftsbeziehungen. German American Business Contacts. Darmstadt: Hoppenstedt. 1987-
HF3099.D5

Fieser and Fieser's Reagents for Organic Synthesis. New York: Wiley. Vol. 8-
QD262.F5

Foundation for Biotechnical and Industrial Fermentation Research. Helsinki, Finland: The Foundation. Vol. 1-
TP501.F68

Garten und Kleintierzucht: Zeitung des Verbandes der Kleingärtner, Siedler und Kleintierzüchter. (Ausgabe) C, Imker. Berlin: Deutscher Bauernverlag. 1. Jahrg., 1 (1 Oktoberheft 1962)-
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Garten und Kleintierzucht. Zeitung des Verbandes der Kleingärtner, Siedler und Kleintierzüchter. (Ausgabe) D,

Kleintierzüchter. Berlin: Deutscher Bauernverlag. s-m. 1. Jahrg. 1 (1 Oktoberheft 1962)-
49 G19

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QK1.H57

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410 H992

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QC851.J62

Journal of Climate and Applied Meteorology. American Meteorological Society. Boston, MA: The Society. Vol. 22, no. 1 (Jan. 1983)-v. 26, no. 12 (Dec. 1987)-
QC851.J6

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S539.5.J68

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SH138.W62

Journal of the World Mariculture Society. Baton Rouge, LA: Louisiana State University, Division of Continuing Education ... Louisiana State University, School of Forestry and Wildlife Management. a. Vol. 12, no. 1-
SH138.W62

Miscellaneous Bulletin. Division of Animal Health. (Sydney): Dept. of Agriculture, N.S.W.. 1-
SF722.A82M5

Monograph. Gainesville, FL: Agricultural Experiment Stations, Institute of Food and Agricultural Sciences, University of Florida. No. 12 (Jan. 1984)-
S540.A2F6

The...NFPA Fire Protection and Fire Service Reference Directory. (Quincy, MA): National Fire Protection Association. a. (13th ed.) (1988)-
TH9111.F53

NOAA Technical Report NMFS CIRC (microform). U.S. Department of Commerce, National Oceanographic and Atmospheric Administration, National Marine Fisheries Service. Seattle, WA: The Service; Washington, DC: For sale by the Supt. of Docs., U.S. G.P.O. Irregular. 353 (Aug. 1971)-451 (Jan. 1984)-
Fiche S-122

Organic Gardening. Emmaus, PA: Rodale Press. Apr. 1988-
S605.5.O74

Plant Foods for Human Nutrition. (Dordrecht): Martinus Nijhoff. Four issues per year. Vol. 37, no. 3-TX341.P53

Quantitative Structure-Activity Relationships including Molecular Modelling and Applications of Computer Graphics in Pharmacology, Chemistry, and Biology. (Weinheim, Federal Republic of Germany): VCH Verlagsgesellschaft mbH. q. Vol. 4, no. 3 (Sept. 1985)-

QP906.S75Q8

Report and Accounts for the Year Ended 29th February... Cotton Marketing Board, Zimbabwe. (Harare): The Board. a. -1983/1984.

HD9087.Z55Z5

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SB732.8.T42

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410.9 AL62

Veterinary Reference Service: Large Animal Edition. Santa Barbara, CA: American Veterinary Publications. m. Vol. 16, no. 1 (Jan. 1975)-vol. 7, no. 4 (Apr. 1986).

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QD1.Z4



**New
Bibliographies**

QUICK BIBLIOGRAPHIES

The bibliographies in this series are primarily computerized online as batch bibliographies emanating from searches performed by the NAL Public Services Division Staff in response to customer requests. Searches are selected for inclusion based on the currency of the topic, interest among clientele, and probable value to a larger audience. Unless otherwise specified, citations are from AGRICOLA. Revisions or updates will be renumbered and reannounced. Only one copy of a title will be sent; however, requesters may make copies. To request a copy of a *Quick Bibliography*, circle the desired title(s) below and send your request with a self-addressed label to:

Reference Branch, Room 111
National Agricultural Library
Beltsville, MD 20705

Q.B.--88-66. Rural America's Elderly, 1979-April 1988. 130 citations; English only. Prepared by Robert E. Bray. July 1988.

Q.B.--88-67. Alternative Farming Systems--Economic Aspects, 1979-May 1988. 292 citations; English only. Prepared by Karl Schneider. July 1988. Updates 87-31.

Q.B.--88-68. IPM and Biological Control of Weeds, January 1986-April 1988. 276 citations; English only. Prepared by Jayne T. MacLean. August 1988. Updates 87-58.

Q.B.--88-69. Vegetable Gardening, 1982-March 1988. 184 citations; English only. Prepared by Jayne T. MacLean. August 1988. Updates 87-38.

Q.B.--88-70. Agroforestry, 1979-March 1988. 322 citations; English only. Prepared by Jayne T. MacLean. August 1988. Updates 86-73.

Q.B.--88-71. Forage Legumes, June 1985-April 1988. 258 citations; English only. Prepared by Jayne T. MacLean. August 1988. Updates 86-56.

Q.B.--88-72. Kiwifruit, 1979-[May?] 1988. 245 citations; English only. Prepared by Sheldon Cheney. September 1988. Updates 83-19.

Q.B.--88-73. Global Warming and the Greenhouse Effect, 1979-[May?] 1988. 186 citations; English only. Prepared by Jayne T. MacLean. September 1988. Updates 86-82.

Q.B.--88-74. Drought Effects on Field Crops, 1979-[May?] 1988. 154 citations; English only. Prepared by Jayne T. MacLean. September 1988.

Q.B.--88-75. Mushroom Cultivation Worldwide, 1983-[May?] 1988. 305 citations; languages: none excluded. Prepared by Jayne T. MacLean. September 1988. Updates 86-32.

Q.B.--88-76. Soil Organic Matter: Impacts on Productivity, 1979-April 1988. 335 citations; languages: none excluded. Prepared by Karl Schneider. September 1988.

Q.B.--88-77. Earthworms: Raising, Uses, Beneficial Aspects, 1979-[May?] 1988. 342 citations; English only. Prepared by Jerry Rafats. September 1988. Updates 86-50.

Q.B.--88-78. Potential New Crop: Kenaf, Commercial Fiber and Pulp Source, 1970-[May?] 1988. 192 citations; languages: none excluded. Prepared by Jerry Rafats. September 1988. Updates 88-32.

(See QB, p. 18, col. 1)

(QB, from p. 17)

Q.B.--88-79. Medical Botany and Herbal Medicine: Books and Articles, January 1986-May 1988. 341 citations; English only. Prepared by Jayne T. MacLean. September 1988. Updates 87-15.

Q.B.--88-80. Bt (*Bacillus thuringiensis*) for Biocontrol, January 1983-May 1988. 326 citations; English only. Prepared by Jayne T. MacLean. September 1988. Updates 88-08.

Q.B.--88-81. Conservation Tillage (including Minimum and No-Tillage), January 1987-June 1988. 377 citations; English only. Prepared by Jayne T. MacLean. September 1988. Updates 87-43.

Q.B.--88-82. Nursery Production of Landscape Plants, January 1979-May 1988. 281 citations; English only. Prepared by Jayne T. MacLean. September 1988. Updates 88-04.

SPECIAL REFERENCE BRIEFS

S.R.B.--88-09. Substance Abuse: "Just Say No." Prepared by Kathleen C. Hayes. June 1988.

S.R.B.--88-10. Biotechnology: Methodologies Involved in the Production of Transgenic Animals. Prepared by Jean Larson and Suzanne Nanis. September 1988.

S.R.B.--88-11. Alternatives to the Use of Animals in Research and Education. Prepared by Kevin Engler and Jean Larson. September 1988.

S.R.B.--88-12. Animal Euthanasia. Prepared by Suzanne Nanis and Jean Larson. September 1988.

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Biotica; Publication del Instituto de Investigaciones Sobre Recursos Bioticos A.C. Vol. 12 (2), 1987; 13, (1), 1988, to date.

Focus on Floriculture. Vol. 12 (4), 1984; 14, 1984 to date.

Horticultura Brasileira. Sociedade de Olericultura do Brasil. Vol. 1 (2), 1983.

Land Area of the National Forest System. 1980 & 1984.

Paper Trade Journal. Vol. 159 (24), 1975; 165 (5-24), 1981; 166 (1-24), 1982; 167 (12, 23-24), 1983; 169 (13-24), 1985.

Pharmaceutical Chemistry Journal. Vol. 12-17, 1979-85.

Preliminary Wheat Crop Forecast. 1975; 1978, to date.



SURPLUS PUBLICATIONS

The National Agricultural Library will make available the following surplus publications to any interested organization that regularly sends free publications to NAL, including most Federal, land-grant, and agricultural research institutions as well as many others. Foreign institutions will need to provide a U.S. mailing address or make other special arrangements with U.S. sources for shipment of material. Listed titles may be requested up to six months following announcement.

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Agronomy Journal. Vol. 60-78, 1968-86.

Boyce Thompson Institute Contributions. Vol. 7-24, 1935-71.

Canadian Journal of Genetics and Cytology. Vol. 8-21, 1966-79.

Entomology Abstracts. Vol. 6-10, 1975-79.

Federation Proceedings. Federation of American Societies for Experimental Biology. Vol. 36-46, 1977-87.

Journal of Experimental Biology. Vol. 37-77, 1960-78.

Journal of Food Science. Vol. 37-38, 1972-73; 40-42, 1975-77; 50, 1985.

Journal of Reproduction and Fertility. Vol. 7-45, 1964-75.

Journal of Theoretical Biology. Vol. 8-55, 1965-75.

Lloydia. Vol. 16-42, 1953-79.

The Quarterly Review of Biology. Vol. 48-54, 1973-79.

Seed Abstracts. Commonwealth Agricultural Bureaux. Vol. 1, 1979.

Social Sciences in Forestry. No. 45-72, 1978-87.

Toxicology. Vol. 17-23, 1970-72.

Toxicology and Applied Pharmacology. Vol. 24-66, 1973-82.

Weed Science. Vol. 1-35, 1952-87.



SURPLUS PUBLICATIONS IN RUSSIAN

Agricultural Practices of Cultivating Sugar Beets for Their Seeds. Moskva, 1986.

Hereford Breed of Beef Cattle of Estonia. Tallinn, 1985.

Infectious Diseases of the Stomach and Intestines in Pigs. Moskva, 1984.

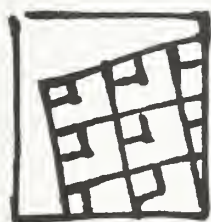
Influence of Extreme Environmental Conditions on Agricultural Plant Yield Structure. Leningrad, 1982.

Influence of Methods of Soil Treatment and Application of Fertilizers on Seedlings of Fruits and Grapes. Tashkent, 1983.

Recultivation of Eroded Peat-bog Under Agricultural Use. Moskva, 1986.

The Technological Properties of Wheat and the Quality of Its Processed Product. Moskva, 1984.

The Use of Sapropel in Fertilization. Moskva, 1986.



Agriculture Datebook

September 18-24: National Farm Safety Week. Contact: Jack W. Burke, National Safety Council, (312) 527-4800.

September 19-20: Animal Health Institute International Annual Meeting. Washington, DC; Grand Hyatt Hotel. Contact: Adrienne Dern, AHI, 119 Oronoco St., Box 1417-D50, Alexandria, VA 22313.

September 19-20: Veterinary Perspectives on Genetically Engineered Animals. Washington, DC: Mayflower Hotel.

Contact: Dr. John R. Boyce, American Veterinary Medical Association, 930 North Meacham Road, Schaumburg, IL 60196-1074. (212) 885-8070.

September 21-23: American Feed Industry Association Marketing Seminar. Memphis, TN; Peabody. Contact: AFIA, (703) 524-0810.

September 24: Soil Conservation Service National State Conservationists Conference. Myrtle Beach, SC. Contact: (202) 447-7173.

September 26: National Association of State Departments of Agriculture Annual Meeting. Reno, NV. Contact: (202) 447-4623.

September 27: Rural Development Field Hearing. Hattiesburg, MS. Contact: (202) 447-4581.

September 28-October 1: 21st Annual Conference of the American Assn. of Bovine Practitioners. Calgary, Alberta, Canada; Calgary Convention Centre. Contact: AABP, (317) 494-8560.

September 29-October 2: American Meat Institute Convention. Las Vegas, NV; Las Vegas Hilton. Contact: AMI, (703) 841-2400.

October 1-31: Energy Awareness Month. Contact: Bill Whyte, (202) 447-8174.

October 2-6: Library and Information Technology Association's Second National Conference. Boston, MA, Hynes Convention Center. Contact: LITA, 50 E. Huron St., Chicago, IL 60611. (312) 944-6780.

October 2-6: National Association of Extension Home Economists. Pittsburgh, PA., David L. Lawrence Convention Center. Contact: NAEHE, Henry, IL. (309) 364-2356.

October 2-6: World Grain Congress. Brisbane, Queensland, Australia. Contact: Barbara Mount, P.O. Box 29155, Shawnee Mission, KS 66201.

October 2-7: World Congress on Vegetable Protein Utilization. Raffles City, Singapore; Westin Stamford/Plaza Hotel. Contact: American Oil Chemists' Society, P.O. Box 3489, Champaign, IL 61821.

October 3: National Grange Seminar. Washington, DC. Contact: (202) 447-4623.

October 3: National FFA Conference on Community Development. Washington, DC. Contact: (202) 447-4581

October 3-5: Society for Industrial Microbiology Conference on Listeria Monocytogenes. Rohnert Park, CA. Contact: Ann Kulback, P.O. Box 12534, Arlington, VA 22209.

October 3-7: Beefmaster Breeders Universal Annual Meeting. Atlanta, Georgia. Contact: BBU, San Antonio, TX, (512) 732-3132.

October 3-7: Association of Marine Science Libraries and Information Centers 14th Annual Conference. Sheraton Royal Biscayne Hotel, Miami, FL. Contact: Kay K. Hale, RSMAS Library, University of Miami Rosenstiel School of Marine and Atmospheric Science, 4600 Rickenbacker Causeway, Miami, FL 33149. (305) 361-4021.

October 6: Children's Nutrition Research Center Meeting. Houston, TX. Contact: (202) 447-5923.

October 7-8: International Wheat Industry Utilization Conference. Town & Country Hotel, San Diego, CA. Contact: Dr. Y. Pomeranz, Washington State University, Dept. of Food Science and Human Nutrition, Pullman, WA 99164-2032. (509) 335-8230.



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LIVING LEGACY TREE PLANTING



photo: Steven M. Goss

Visitors and NAL staff plant a second seedling of the Wye Oak commemorating the Bicentennial of the Constitution, the 50th Anniversary of the Maryland Extension Homemakers Council, and 1988 Arbor Day. See pages 12-13 for story.

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